

# TRIPLER ARMY MEDICAL CENTER



## CONSUMER CONFIDENCE REPORT 2006



### ***The Safe Drinking Water Act requires***

all community water systems to provide an annual Consumer Confidence Report (CCR) to their customers. CCRs are designed to educate the public on the origin of the water, the source of potential problems and the steps used to ensure that the water is safe to drink.

The US Army Garrison, Hawaii is providing this report as a service to the community in conjunction with this requirement.

### ***How does the CCR work?***

An essential part of the CCR is the table showing the highest level of each detected substance (see inside). There are three columns on the table which should be given

special attention: the maximum contaminant level (MCL), the level detected, and whether a violation occurred. The Environmental Protection Agency (EPA) set MCLs for a number of substances, which may be found in drinking water. All of the substances listed in the table are below the MCLs set by the EPA. The US Army Garrison, Hawaii continues to provide some of the cleanest and safest drinking water available in Hawaii!

### ***Where does your water come from?***

The Tripler Army Medical Center (TAMC) Water Treatment Plant (WTP) is located south of the installation boundary. Two Army owned 16 inch basal-aquifer wells located at the WTP, extend to a depth of 286 feet. Two electrically powered pumps operate alternately to pump water out of the wells. The water is treated with chlorine prior to entering the distribution system.

The distribution system is broken down into two main loops: The upper and lower loops. Each loop is served by its own 500,000 gallon storage tank. The lower loop serves water to the hospital, the Veterans Administration Facility, and their supporting facilities. The upper loop serves water to the housing areas. Once water enters the distribution system, its first stop is the lower 500,000 gallon storage tank, where the water is treated with fluoride. The water from the lower tank goes to the lower loop and is pumped to the upper 500,000 gallon storage tank. From the upper storage tank, the water flows to each housing facility on the installation.

Chlorine and fluoride are added to the water as required under Army Standards. Chlorine is used as a disinfectant and

fluoride is used to promote strong teeth in children.

The susceptibility of the Tripler Army Medical Center Water System to contamination has been evaluated under the Hawaii Source Water Assessment Program. The results of the Assessment, dated March 2004, are available for review by contacting the Directorate of Public Works, Environmental Division, at (808) 656-2878.

***In order to ensure that tap water is safe to drink,*** the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

### ***Where Do Potential Ground Water Quality Problems Come From?***

As water percolates through the ground, it dissolves naturally-occurring minerals. Substances resulting from the presence of animals or human activity can also be introduced to ground water or the distribution system. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

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**Substances that may be mixed with ground water or may be introduced through the distribution system are:**

**Microbial organisms**, such as viruses and bacteria, which may come from sewage spills and wildlife. Indicator organisms include total and fecal coliforms and not pathogens.

**Inorganic compounds**, such as salts and metals, are naturally-occurring or could result from urban stormwater runoff, industrial or domestic wastewater discharges, or farming.

**Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

**Organic chemicals**, including synthetic and volatile organic chemicals, could be byproducts of industrial processes, petroleum distribution, and can also come from gas stations, and urban stormwater runoff.

**Radionuclides** are naturally occurring or could be the result of oil and gas production.

**Further information** about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline (1-800-426-4791) and

**DPW Environmental Division**  
947 Wright Avenue, Wheeler Army Airfield  
United States Army Garrison, Hawaii  
Schofield Barracks, HI 96857-5013  
(808) 656-2878

**Preventive Medicine**  
Tripler Army Medical Center  
1 Jarrett White Road  
Honolulu, Hawaii 96859-5000  
(808) 433-6693

**Table Definitions:**

**MCL**  
Maximum Contaminant Level ~The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG**  
Maximum Contaminant Level Goal ~The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Table Abbreviations:**

**ppb** parts per billion or micrograms per liter  
**ppm** parts per million or milligrams per liter  
**pCi/L** picoCuries per liter  
**µg/L** micrograms per liter  
**ND** not detected  
**N/A** not applicable

**Table Notes:**

- Fluoride is added to the water system to help promote healthy teeth in children. The target level for Fluoride is 0.6-0.8
- The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.
- This number represents an action level for additional sampling and is not an MCL.

\* Results are in pCi/L unless otherwise stated

**Town Hall Meetings:**

Please contact your local Mayor if you would like to include an informational briefing of your Consumer Confidence Report at an upcoming Town Hall Meeting.

**Water Quality Table for Tripler Army Medical Center**

Data presented in this table includes the results of samples taken between January 1, 2006 and December 31, 2006. Samples were collected and analyzed for 170 different chemicals. All test results were less than MCLs. Results of samples in the table below identify low levels of contaminants detected below EPA limits. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.

Contaminants	MCL	MCLG	Average Level Detected	Range of Detection (multiple samples)	Likely Source of Contaminant	Violation
Inorganic						
Fluoride <sup>1</sup> (ppm)	4	4	0.72	0.64 – 0.98	Water additive for strong teeth	NO
Nitrate as Nitrogen (ppm)	10	10	0.45	0.44 – 0.46	Runoff from fertilizer use	NO
Chromium (ppm) 2005	0.1	0.1	0.0025	0.002 – 0.003	Erosion of natural deposits	NO
Organic						
Benzo(a)pyrene (ppm)	0.0002	0	ND	N/A	Leaching from linings of water storage tanks and distribution lines	NO
Diquat (ppm)	0.02	0.02	ND	N/A	Runoff from herbicide use	NO
Unregulated <sup>2</sup>						
Sulfate (ppm)	N/A	N/A	11.5	11-12	Naturally Occurs	NO
Radionuclides*						
Gross Alpha	15 <sup>3</sup>	N/A	0.598	0.89 – 1.5	Occurs Naturally	NO
Gross Beta	50 <sup>3</sup>	N/A	2.05	3.5 – 4.7	Occurs Naturally	NO
Radium-226	---	N/A	0.156	0.04 – 0.402	Occurs Naturally	N/A
Radium-228	---	N/A	0.381	0.23 – 0.964	Occurs Naturally	N/A
Combined Radium	5 <sup>3</sup>	N/A	0	0	Occurs Naturally	NO
Uranium	30 µg/L	N/A	0	0	Occurs Naturally	NO

**Violations:**

A violation occurs when the Level Detected exceeds the MCL. **No violations occurred in 2006 at Tripler Army Medical Center.**

**Note:**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791). Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses.) You can do this by posting this notice in a public place or distributing copies by hand or mail.